

ABSTRACT OF THE DISCLOSURE

An immunogenic composition capable of producing a respiratory syncytial (RS) virus specific immune response in a host immunized therewith comprises purified, inactivated RS virus which is substantially free from cellular and serum components and which is non-infectious, non-immunopotentiating, immunogenic and protective. The virus is grown on a vaccine quality cell line and harvested virus is purified under non-denaturing conditions to be substantially free from cellular and serum components. The purified RS virus is inactivated using  $\beta$ -propiolactone, a non-ionic detergent, particularly n-octyl- $\alpha$ -D-glucopyranoside and n-octyl- $\beta$ -D-glucopyranoside, or ascorbic acid. The immunogenic composition may be formulated as a vaccine for *in vivo* administration to a human host. The immunogenic composition also may be used in diagnostic applications.